19980112.ba v01_n875.bam.980112

>From ???@??? Mon Jan 12 23:56:51 1998
Message-Id: <199801121909.NAA26667@sco.theporch.com>
Date: Mon, 12 Jan 1998 13:09:53 CST
Subject: BOATANCHORS digest 1875

BOATANCHORS Digest 1875

Topics covered in this issue include:

1) Re: Plate Dip VS Pout
   by Ken Gordon <keng@uidaho.edu>
2) Pot metal failure, was Re: German WW2 metal ?
   by "Roberta J. Barmore" <rbarmore@indy.net>
3) Re: German WW2 metal ?
   by Sandy W5TVW <ebjr@worldnet.att.net>
4) Re: ARC-5 Receiver Questions?
   by Michael Hanz <AAFRadio@erols.com>
5) Collins R-388 PTO Fixed! -- Thanks
   by Larry Wolken <rhys@ix.netcom.com>
6) Re: German WW2 metal ?
   by Morris Odell <morriso@vifp.monash.edu.au>
7) Re: 1AW QSL card and Maxim signature
   by "Neal McEwen, K5RW" <nmcewen@metronet.com>
8) Plate Dip vs. RF out
   by Larry Boyle <lbkd6wi@jps.net>
9) question on Katakana Morse code
   by Ho4bart <Ho4bart@aol.com>
10) Re: 5C22, What's it?
   by Bill Jarvis <B.H.Jarvis@hw.ac.uk>
11) Re: Leeds 203A
   by Bill Jarvis <B.H.Jarvis@hw.ac.uk>
12) Re: High Voltage Probe FS
   by w7ni@teleport.com (Stan Griffiths)
13) =?ISO-8859-1?Q?GRC-109_=B4s__British_Cousin?=
   by "Ragnar Otterstad" <danmec@inet.uni-c.dk>
14) Re: Re German Radio metal
   by "Ragnar Otterstad" <danmec@inet.uni-c.dk>
15) Re: Pot metal failure, was Re: German WW2 metal ?
   by "Ragnar Otterstad" <danmec@inet.uni-c.dk>
16) Re: what is German WW2 potmetal ?
   by "Ragnar Otterstad" <danmec@inet.uni-c.dk>
17) Re: Help, please
   by w7ni@teleport.com (Stan Griffiths)
18) Re: Scope Probe Ratings
   by "Arden Allen" <aallen@sirius.com>
19) Glass shrapnel... and phone ringers!

    by midshires@cix.co.uk (Andrew Emmerson)
20) RE: NIB Marconi RK-60 Tubes....Cheap!!
    by Ed Sieb <esieb@gmsiworld.com>
21) RE: HF SWR Meter on VHF?
    by Ed Sieb <esieb@gmsiworld.com>
22) Viking Valiant Troubleshooting Help?
    by "Freeberg, Scott (STP)" <scott.freeberg@guidant.com>
23) Re: New info on C-454 & BC-610
    by Ken Gordon <keng@uidaho.edu>
24) Re: Command set Tuning Knobs
    by "Owens, Clarence" <owensc@nebeng.otis.com>
25) Re: High Voltage Probe FS
    by Bill Jarvis <B.H.Jarvis@hw.ac.uk>
26) Re: Viking Valiant Troubleshooting Help?
    by Bill Jarvis <B.H.Jarvis@hw.ac.uk>
27) Japanese data book
    by BEN NOCK <G4BXD@compuserve.com>
28) re: the hazards of reading high voltage supplies
    by Richard Loken <richardlo@devax.admin.athabascau.ca>

Date: Sun, 11 Jan 1998 17:00:55 -0800 (PST)
From: Ken Gordon <keng@uidaho.edu>
To: Larry Boyle <lbkd6wi@jps.net>
Cc: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Plate Dip VS Pout
Message-ID: <Pine.BSF.3.95.980111170040.10252B-100000@piobaire.mines.uidaho.edu>

> Good Morning. I have a interesting phenomenon with my heath
> Apache TX.
> When I tune the plate cap for a dip in the plate current that's not
> where the max power out is. I get max power when I tune off
> the plate resonance. Any thoughts on this?? All help gladly
> appreciated. Thanks Larry B. Placerville Ca.

Neutralize it.

Ken

Date: Sun, 11 Jan 1998 20:10:23 -0500 (EST)
From: "Roberta J. Barmore" <rbarmore@indy.net>
To: Ho4bart <Ho4bart@aol.com>
Cc: Old Tube Radios <boatanchors@theporch.com>
Subject: Pot metal failure, was Re: German WW2 metal ?

Message-ID: <Pine.SUN.3.96.980111200037.19982A-100000@indy3>

Hi!

On Sun, 11 Jan 1998, Ho4bart wrote:

> rust and corrosion, you can really see the process in action, but in
> this zinc decomposition, you don't see the metal being attacked.

Well, you do and you don't. Near as I can tell, zinc-alloy oxidizes to a material the same color as the metal (Barry O., what's the deal here?); but the structure changes, so it swells and crumbles and ultimately just falls apart.

In my "project" box is a nice Shure mic ringstand, cast of potmetal and now in five parts. It was superglued (!) when I bought it, and with any luck, some time this winter I'll epoxy it back together, make a rubber mold and cast a couple of plastic copies, with the intention of finding a small foundry to make up some of a better metal (aluminium? Bra$$?) eventually.

Collectors of old toys--model trains especially--are *real* aware of the problem, and there's no known fix for the original. When enough of the zinc-alloy fails, pfft, all you have is a pile of scraps.

73,
--Bobbi

Date: Mon, 12 Jan 1998 01:34:21 +0000
From: Sandy W5TVW <ebjr@worldnet.att.net>
To: Ho4bart@aol.com, boatanchors@theporch.com
Subject: Re: German WW2 metal ?
Message-ID: <19980112013419.AAA22792@LOCALNAME>

Someone mentioned in the thread that there was a high percentage of magnesium used in this German pot metal "brew". If this is true, everything I have seen cast of magnesium has a tendency to corrode and crumble into a white power ultimately, depending on what it was exposed to.

Barry Ornitz might have the answer here. How did the "Magnesium body" camera bodies of old hold up>

73,
E. V. Sandy Blaize, W5TVW
"Boat Anchors collected, restored, repaired, traded and used!"
417 Ridgewood Drive
Metairie, LA., 70001

860 Hartley 'ECO' under construction**
*** Looking for a TRC-10 transceiver ******
*** Looking for an RAL receiver ***********

Date: Sun, 11 Jan 1998 20:56:17 -0800
From: Michael Hanz <AAFRadio@erols.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: ARC-5 Receiver Questions?
Message-ID: <34B9A271.23F3@erols.com>

Michael Hanz wrote:
> > Apropos to the subject, I received a nice little WWII ARC-5 command
> > receiver over the weekend, USN Release 2/44, that has one tube socket
> > labeled as an A5023 (other labels are 12SL7GT and 3ea 12SF7Y). Is the
> > A5023 an early 12A6, or some other power amp?

> "The A5023 is a Navy number (Navy stock number N16-T-75023) and is
> described as a "special 12A6 with an internal diode."

Well, thanks to the generousity of the list, I now I know what it is.
Anyone have a couple on the shelf out there? It should look eggsackly
like a 12A6.

73,
Mike

Date: Sun, 11 Jan 1998 19:25:59 -0600 (CST)
From: Larry Wolken <rhys@ix.netcom.com>
To: boatanchors@theporch.com
Subject: Collins R-388 PTO Fixed! -- Thanks
Message-ID: <1.5.4.16.19980111201929.2b97d014@popd.ix.netcom.com>

Hi Gang --

Thanks to all of you who were kind enough to respond for my request for a new PTO. The advice was unanimous: try to fix it... the replacement you get may be worse than the one you've got. It took most of the afternoon, but I was able to remove it and track down the problem. There are two parts to the PTO. The two tubes sit on a very small chasis that's outboard to the actual PTO. This thing is a bear to get around in the first time you open one up -- very tight quarters. They used what Howard Mills calls cigar caps, which are small brown tubulars (I assume paper) that look about like two watt carbon resistors.

While the caps in the subchasis tested good I replaced them anyway but still no dice. When I opened up the PTO cylinder I found another of these "cigars" inside. It was wide open -- dead as a doornail. There was room inside the cylinder to replace it with an orange drop and away we go...

Great group of sage, generous guys. Keep up the good work.

73
Larry Wolken N3OJD

Date: Mon, 12 Jan 1998 13:27:47 +1100
From: Morris Odell <morriso@vifp.monash.edu.au>
To: boatanchors@sco.theporch.com
Subject: Re: German WW2 metal ?
Message-ID: <34B97FA3.64A@vifp.monash.edu.au>

Hi all,

Sandy W5TVW wrote:
>
>   Someone mentioned in the thread that there was a high
> percentage of magnesium used in this German pot
> metal "brew". If this is true, everything I have seen cast of
> magnesium has a tendency to corrode and crumble into a white
> power ultimately, depending on what it was exposed to.

Many years ago I salvaged what I thought was a pure magnesium bar from a German textile machine that was being junked. The machine would have been built in the late 1940s and I always thought they might have used recycled WW2 metal for it. The bar is still in my Mother's rather damp garage and last time I looked about a year ago it was intact. It must be 50 years old now. I kept it as it was good fun to cut off bits and burn them but must admit my youthful enthusiasm for pyrotechnics & explosives has faded quite a bit.

Of course it's possible that it wasn't pure Mg but an alloy, but it certainly looked like Mg when you set a piece alight! I remember that the Mg we burned in high school chemistry classes always looked rather oxidised. This bar was machined and painted and oily but never looked like crumbling or oxidising.

I'm sure the corrosion performance of Mg (as other metals) depends a lot on it's mode of preparation.

My $0.02 worth

73 de Morris VK3DOC

Date: Sun, 11 Jan 1998 20:56:37 +0000
From: "Neal McEwen, K5RW" <nmcewen@metronet.com>
To: nmcewen@sco.theporch.com
Cc: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: 1AW QSL card and Maxim signature
Message-ID: <34B93204.3A91@metronet.com>

Whoops,
  Should have been http://www.megasource.com/k5rw/Maxim_signature.JPG
--
73 de K5RW, Neal McEwen, at "The Telegraph Office", nmcewen@metronet.com
        A WWW Page for Telegraph Key Collectors and Historians
           http://fohnix.metronet.com/~nmcewen/tel_off.html

Date: Sun, 11 Jan 1998 21:43:55 -0800
From: Larry Boyle <lbkd6wi@jps.net>
To: Boatanchors list <boatanchors@theporch.com>
Subject: Plate Dip vs. RF out
Message-ID: <34B9AD9A.2F1AFFA8@jps.net>

Thanks to all that replied. The general consensus is to Neutralize it.
Thanks to all. I have gone through the alignment and seems to be better.

Thanks, Larry B.

Date: Mon, 12 Jan 1998 02:44:33 EST
From: Ho4bart <Ho4bart@aol.com>
To: boatanchors@sco.theporch.com
Subject: question on Katakana Morse code
Message-ID: <3b2f84c2.34b9c9e2@aol.com>

how many characters are in this code? (not counting
numbers)
are the numbers the same as the Int'l Morse code?

FYI i believe in the Feb 44   Radio News there is a photo
reduced image of a McElroy poster with different national
variations on int'l morse -- i don't have this so i can't check.
tnx   hue miller

Date: Mon, 12 Jan 1998 07:59:52 +2400
From: Bill Jarvis <B.H.Jarvis@hw.ac.uk>
To: spetri <spetri@e-tex.com>
Cc: boatanchors <boatanchors@theporch.com>
Subject: Re: 5C22, What's it?
Message-ID: <199801120759.HAA23106@punt1.hw.ac.uk>

On 1998-01-10 spetri@e-tex.com said:
 sp>Hello Tubsters,
 sp>Anyone know the 5C22?

Equivalents: 6279, AX9912, FX219, HT415, PL522, TG1000, TH6522,
XH16-200.

Bill, aka maestro@cix.co.uk.
GM8APX, qthr=No 6, EH4 6JY==Cave felem==No Rectangulars=Ikke Hawkering

Laborant montes, parturiunt haec mus

Net-Tamer V 1.10 - Registered

Date: Mon, 12 Jan 1998 07:59:57 +2400
From: Bill Jarvis <B.H.Jarvis@hw.ac.uk>
To: william <william@ans.net>
Cc: boatanchors <boatanchors@theporch.com>
Subject: Re: Leeds 203A
Message-ID: <199801120759.HAA23109@punt1.hw.ac.uk>

On 1998-01-11 william@ans.net said:
 wi>I just uncovered a nice, new 203A triode I had purchased some time
 wi>ago. It is tagged "Leeds Radio". Could someone please enlighten me
 wi>about Leeds? William Donzelli
 wi>william@ans.net

Around 1977 I last saw a good old-fashioned surplus dealer's under the
railway bridge close to Leeds railway station. I've been near many times
since and it's no longer there; however those shops don't always close -

sometimes just move.

I try to keep in touch with the few remaining boatanchor shops in the UK so IF the right sort of Leeds Radio still exists I look forward to hearing about it.

Bill, aka maestro@cix.co.uk.
GM8APX, qthr=No 6, EH4 6JY==Cave felem==No Rectangulars=Ikke Hawkering

Timeo Danaos et dona ferentes

Net-Tamer V 1.10 - Registered

Date: Mon, 12 Jan 1998 00:14:30 -0800 (PST)
From: w7ni@teleport.com (Stan Griffiths)
To: richardlo@devax.admin.athabascau.ca
Cc: boatanchors@theporch.com
Subject: Re: High Voltage Probe FS
Message-ID: <199801120814.AAA21742@mail1.teleport.com>

>On Wed, 7 Jan 1998, Larry Boyle wrote:
>
>> For someone that would like to measure up to 40KV with their
>> DVM. I have a NEW in the sealed package, FLUKE 80K-40
>> High Voltage Probe for sale. $70 including shipping or make
>> me a offer. You can really tune up the Linear PS with this.
>   ^^
>
>Possibly not. Many of these probes (like the one Simpson sell for the 260)
>are intended only to measure low current high voltage supplies like CRT anodes.
>
>The anode voltage in a linear or a microwave oven is not low power and must be
>measured with extreme caution and the right instruments. Read the manual for
>the probe before you use it.
>
>My chance to pontificate on the ever popular safety topic.
>---
>   Richard Loken VE6BSV, Systems Programmer - VMS

I don't think I understand exactly what is going on here. How can the current capability of a power supply effect whether or not a high voltage probe can be safely used to measure the supply voltage?

Scope probes, including high voltage scope probes, are derrated for frequency, ie: the higher the frequency, of the RF you are measuring, the lower the maximum voltage you can safely measure. I expect this would be true of high voltage meter probes, too, but at DC, I don't think any of those probes would care how much current the supply can generate. Am I missing something here?

So it would make some difference WHERE in a linear amp you were taking the measurement. Is it RF or DC . . . ?

Stan w7ni@teleport.com

Date: Mon, 12 Jan 1998 10:02:10 +0100
From: "Ragnar Otterstad" <danmec@inet.uni-c.dk>
To: "Old Tube Radios" <boatanchors@theporch.com>
Subject: =?ISO-8859-1?Q?GRC-109_=B4s__British_Cousin?=
Message-ID: <199801120902.KAA02410@hertz.uni2.dk>

I have a duplicate PRC 312, SAS longe range set, which ic the British equivalent to 109. It even was used with GRA-71 too !

If interested, please email me directly

73

Rag OZ8RO

Rag Otterstad OZ8RO Copenhagen suburb: Birkerod
Also JW5HE LA5HE. Previously held : G5BHQ HB9XCG

Collector of W.W.2 German military radio sets, clandestine sets all periods, cipher equipment.

Adress: Hosterkobvej 10. DK 3460 Birkerod, Denmark

Tel :   ++45-4281 5205 evenings. ++45-4497 3366 daytime.

I work for MEC A/S, manufacturer of high quality and good looking pushbutton switches.
If you are designing electronics equipment and have an interest in switches please check the homepage at :
HTTP://WWW.MEC.DK

To know more about my ham radio background try my personal homepage :

HTTP://WWW.WEBSPAWNER.COM/USERS/OZ8RO/

Date: Mon, 12 Jan 1998 10:31:17 +0100
From: "Ragnar Otterstad" <danmec@inet.uni-c.dk>
To: <dgnova@erols.com>, "Old Tube Radios" <boatanchors@theporch.com>
Subject: Re: Re German Radio metal
Message-ID: <199801120942.KAA00908@hertz.uni2.dk>

> From: philip mccoy <dgnova@erols.com>
> To: Old Tube Radios <boatanchors@theporch.com>
> Subject: Re German Radio metal
> Date: 11. januar 1998 20:46
>
> Re German Radio metal:
>
>
> German radios were made of an alloy of about 90 percent magnesium
> 8 percent aluminum and about 2 percent zinc,copper and other metals.
>
> --------------------------------
>
> I wonder if the older German military radios were made of this, then
> they switched to zinc as mentioned in earlier postings.

YES.

>
> In regard to water resistance, if any water gets to the metal, it will
> corrode, not like steel but will turn into a flacky mess. I had this
> happen to a german tank receiver which had been stored in a damp garage.

CORRECT AGAIN.

73   Rag

Rag Otterstad OZ8RO Copenhagen suburb: Birkerod
Also JW5HE LA5HE. Previously held : G5BHQ HB9XCG

Collector of W.W.2 German military radio sets, clandestine sets all
periods, cipher equipment.

Adress: Hosterkobvej 10. DK 3460 Birkerod, Denmark

Tel :   ++45-4281 5205 evenings. ++45-4497 3366 daytime.

I work for MEC A/S, manufacturer of high quality and good looking
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please check the homepage at :
HTTP://WWW.MEC.DK

To know more about my ham radio background try my personal homepage :
HTTP://WWW.WEBSPAWNER.COM/USERS/OZ8RO/

Date: Mon, 12 Jan 1998 10:33:42 +0100
From: "Ragnar Otterstad" <danmec@inet.uni-c.dk>
To: <rbarmore@indy.net>, "Old Tube Radios" <boatanchors@theporch.com>
Subject: Re: Pot metal failure, was Re: German WW2 metal ?
Message-ID: <199801120942.KAA00932@hertz.uni2.dk>

> On Sun, 11 Jan 1998, Ho4bart wrote:
> > rust and corrosion, you can really see the process in action, but in
> > this zinc decomposition, you don't see the metal being attacked.
>
>   Well, you do and you don't. Near as I can tell, zinc-alloy oxidizes
to
> a material the same color as the metal (Barry O., what's the deal here?);

> but the structure changes, so it swells and crumbles and ultimately just
> falls apart.

This is the case with German WW2 radios if not properly stored.

73   Rag   OZ8RO

Date: Mon, 12 Jan 1998 10:26:37 +0100
From: "Ragnar Otterstad" <danmec@inet.uni-c.dk>
To: <morriso@vifp.monash.edu.au>, "Old Tube Radios" <boatanchors@theporch.com>

Subject: Re: what is German WW2 potmetal ?
Message-ID: <199801120941.KAA00818@hertz.uni2.dk>

>
> > WW2 German pot metal may well be a worst case example of rot
> > because they were deliberately melting anything they could to
> > make production. Quality control is a luxury of the well-off.
>
> I was reading a book recently about wartime Germany where they mention
> in passing that used toothpaste tubes were collected for just such a
> purpose.
>
> 73 de Morris VK3DOC

Yes. Absolutely anything containing " precious" metals was collected and
recycled
at the end of the war.

73 Rag OZ8RO raised in occupied Oslo,Norway during WW2

Date: Mon, 12 Jan 1998 01:50:16 -0800 (PST)
From: w7ni@teleport.com (Stan Griffiths)
To: wb6orz@pacbell.net
Cc: boatanchors@theporch.com
Subject: Re: Help, please
Message-ID: <199801120950.BAA07177@mail1.teleport.com>

>Stan, you helped another fellow to identify his Tek probe. I'd like to
>ride along, if you'd be so kind, and ask if you could ID mine; The
>screw-on end says:
>   013-0071-00

This is the Tek part number for the hook tip itself. It is common to many
different probes.

>The body portion nearer to the cable says: Tektronix 010-128. Also P6006
>BNC 3.5

The "010-128" part identifies the probe as a P6006, BNC connector, and 3.5
foot cable.

>Don't have any Tek Lit. here. May have some other markings scratched
>off. Very appreciative any info you could send.
>   Thanks, Les

This is a very common probe from the '60s and is is a X10 probe intended for use on scopes with a 1 meg ohm input impedance. It needs to be "compensated" or adjusted for correct operation on the specific scope or plugin you are using it with. If you switch it to another scope or plugin, you have to adjust the probe again. If you are not familiar with probe compensation, ask and I will give you a little more info on it.

The P6006 came in either BNC or UHF connector versions and you can usually install an adapter if it has the wrong connector for your scope. It has a bandwidth up to 33 MHz and will compensate to scope inputs that have input capacity from 15 to 47 pf. P6006s also came in various cable lengths: 3.5 feet, 6 feet, 9 feet, and 12 feet. Not all of the parts of these various versions of the P6006 that are mechanically compatible are necessarily electrically compatible. If you mixed probe bodies, cables, and connectors, you might get some strange results. I have not tried the many different combinations so if I had a bag of parts and wanted to make a probe out of them, I would assemble one that looked good and test it with the "right signals" to make sure it did not distort the scope display.

Stan w7ni@teleport.com

Date: Mon, 12 Jan 1998 02:07:34 -0800
From: "Arden Allen" <aallen@sirius.com>
To: "Old Tube Radios" <boatanchors@theporch.com>
Subject: Re: Scope Probe Ratings
Message-ID: <199801121006.CAA09841@mail1.sirius.com>

Concerning 'scope probes, Stan comments:

> The part number "010-0189-00" the number for the entire probe, without
> accessories. The probe type is P6011 and it is indeed a 1X probe. The
> maximum voltage rating for that probe is 600 VDC or 600 volt peak AC plus
> DC. This is probably the maximum rating for the scope input as well.

What seems to be missing is the voltage rating at high RF frequencies. My rule of thumb is to stay below about 200V AC (DC + AC << 600 V peak) when probing RF amps in transmitters. Because a probe is capacitive its reactance decreases with frequency and you could get a nasty amount of current flowing in the probe which could turn a probe into junk in short order. Not to mention the hazardous situation that could arise as well. The RF plus DC plate voltage of a 6146 would waste a probe so you can see only a PUNY transmitter has low enough voltages to be directly meaured. The same goes for an oscilloscope's input which is 20 to 47 uuF. You don't want any arcing in the attenuator switch. A X10 divider probe is typically

15 uuF and a X1 probe can be 200 or more uuF depending on the lead length.
The way to meaure RF voltage accurately in a transmitter is to build a
resistive or capacitive voltage divider that can withstand the high RF
voltage and only present a voltage to the 'scope no greater than a few tens
of volts.

Give your loved ones Gummy Bears.
Arden Allen KB6NAX Vallejo, CA aallen@sirius.com

Date: Mon, 12 Jan 1998 11:59 +0000 (GMT Standard Time)
From: midshires@cix.co.uk (Andrew Emmerson)
To: boatanchors@theporch.com
Cc: midshires@cix.co.uk
Subject: Glass shrapnel... and phone ringers!
Message-ID: <memo.19980112115957.52867U@midshires.compulink.co.uk>

During WW2 the Germans were so short of metal, they made the bell gongs in
telephones out of glass. I know an American collector who has one of these
W38 sets.

73, Andy G8PTH.

Andrew Emmerson/Midshires Mediatech/405 Alive
tel: 07000-405625, international +44 1604-844130
fax: 01604-821647, international +44 1604-821647

Date: Mon, 12 Jan 1998 10:52:12 -0500
From: Ed Sieb <esieb@gmsiworld.com>
To: Old Tube Radios <boatanchors@theporch.com>,
        "'Robert S. Ross'"
Subject: RE: NIB Marconi RK-60 Tubes....Cheap!!
Message-ID: <01BD1F48.24B3A020@dstephen.gmsiworld.com>

On Thursday, January 08, 1998 6:44 AM, Robert S. Ross wrote:

> have 9 Marconi RK39 Tubes. These are New in Original Red/Black
> Marconi Boxes.These are larger sized 4 Pin Tubes....Made in CANADA.
> I believe these are transmitter tubes ....but I don't know what they
> are used in.......

These are very similar to the good ol' 807, and could be used as replacements.
Nice tubes, used ceramic base and parts.

Ed Sieb, VA3ES

Date: Mon, 12 Jan 1998 11:05:00 -0500
From: Ed Sieb <esieb@gmsiworld.com>
To: "'Arden Allen'" <aallen@sirius.com>,
        Old Tube Radios
Subject: RE: HF SWR Meter on VHF?
Message-ID: <01BD1F49.EDEC4540@dstephen.gmsiworld.com>

Several years ago, 73 Magazine printed a very good article on =
modifying plain vanilla/CB/HF SWR meters for good accuracy up to UHF =
ranges. I can go peruse my magazine piles and find it, and post the =
issue date here.=20

BA tie-in: these meters have been around since the late fifties; one =
of the meters I have (an original "Quement Electronics" - remember =
them?) is still in use here.

Ed, VA3ES

Date: Mon, 12 Jan 1998 10:30:40 -0600
From: "Freeberg, Scott (STP)" <scott.freeberg@guidant.com>
To: "'Boatanchors@theporch'" <boatanchors@sco.theporch.com>
Subject: Viking Valiant Troubleshooting Help?
Message-ID: <21B46CBD022AD1118F0500805F15A0681ED277@STPMSX05.stp.guidant.com>

Greetings,

My Johnson Viking Valiant I stopped working this weekend. It appeared
to be the same problem that has been popping the low voltage fuse from
time to time since I bought the radio. This time it did not come back
from the dead.

I found two problems, the failured components that I was looking for,
and another burned part which should have nothing to do with this
problem.

Question #1: Someone on the list recently discussed a similar problem.
I am not positive who that was. Mike Toneri VE3?? ? It was for one

of his bigger Johnson transmitters but I recall him talking about a regularly occuring resistor burn out and placing the new resistor outside of the VFO shield. On my Valiant, R3 which is inside the VFO shield was burned and cracked. The OA2 regulator appeared bad also. The result was excessive current on the 300 volt line, blowing the 1.5 amp fuse. A borrowed tube tester could not test the OA2, but it looked all white and splotchy inside. Is this the same problem? I think he replaced it with a much higher power rated resistor also.

Question #2: What is the value of R3 supposed to be? R3 feeds the OA2 inside the VFO shield. I do not have the original manual. The copy schematic says 18K, the parts list says 18k 2 watt, but the burned, ruptured part appears to be a 180 K ohm 2 watt.

Question #3: Is a 5U4 a suitable replacement for the 5V4? When the R3/OA2 combination burned up, it took out the 300 volt low voltage regulator, a 5V4G. I looked in the ARRL handbook and the 5U4 appears to be compatible with a little higher current and voltage ratings. I installed a 5U4 and it appears to work fine.

Question #4: Not related to the original problem, I found that L12, a 4.7 microhenry rf choke in the final amplifier circuit, burned to a crisp. I do not know when this happened. It may have been there when I got the rig. While L12 and the two 1.5 KV capacitors is a filter, the purpose of the filter is not clear to me. What is the purpose of this circuit? Is it necessary to replace it before putting it back on the air? I wonder what the current rating of this part be for replacement?

Thanks very much,

73,

Scott WA9WFA Saint Paul, Minn
Johnson Viking Valiant and National NC300 on cw and AM, wow, what a nice rig!

scott.freeberg@guidant.com

Date: Mon, 12 Jan 1998 09:38:11 -0800 (PST)
From: Ken Gordon <keng@uidaho.edu>
To: Dan Arney <kn6di@groupone.net>
Cc: boatanchors@sco.theporch.com
Subject: Re: New info on C-454 & BC-610
Message-ID: <Pine.BSF.3.95.980112093546.19757E-100000@piobaire.mines.uidaho.edu>

> Ken so it seems that is the correct coil. for 160M. I have the 939 also.

Actually, it MAY NOT be the 160 meter coil. There are two coils, one covers from 2 to 1.5 KC, and the other covers from 1.5 to 1 kc. The first would be the 160 meter version, but I am not sure which is which.

Obviously, there capacitance in the final area has marginal range to cover the frequencies needed.

Ken

Date: Mon, 12 Jan 1998 12:31:00 -0500
From: "Owens, Clarence" <owensc@nebeng.otis.com>
To: Boatanchors Post <boatanchors@theporch.com>
Subject: Re: Command set Tuning Knobs
Message-ID: <0EMOM18F000JG5@mailman.otis.com>

Mike Hanz wrote:

<I've been toying with the idea of ordering a special broach to make the
female
<splined adapters out of brass rod on my lathe, but it is incredibly
expensive.
<I'll toy with slightly more seriousness if there's any interest out
there.

I would imagine that investment casting (otherwise known as "lost wax casting") might be another possible way to make the adaptors. I have a few brass small and large spline adaptors (the small ones are command set receiver spline to 1/4in. shaft) that I grabbed from the UB Engineering school attic back in 1962 or so... they had a bucket of each and I just took some of each 'cause they were neat... Oh to be able to revisit!!! Anyway, they look like possible candidates for making the pattern for molding the wax for making a tree of adaptors. Of course, one would want to have access to a friend in the jewelry or hobby (HO train brass parts, or those little D&D figures, etc.) casting business. I think that the precision of investment casting might be high enough to avoid machining afterward, and the alloy wouldn't be too critical.

Oh well, just another thought...

73,

Clare Owens N2RJB

owensc@nebeng.otis.com

Date: Mon, 12 Jan 1998 18:21:17 +2400
From: Bill Jarvis <B.H.Jarvis@hw.ac.uk>
To: w7ni <w7ni@teleport.com>
Cc: boatanchors <boatanchors@theporch.com>
Subject: Re: High Voltage Probe FS
Message-ID: <199801121821.SAA05451@punt1.hw.ac.uk>

On 1998-01-12 w7ni@teleport.com said:
 w7>the supply can generate. Am I missing something here?
 w7>So it would make some difference WHERE in a linear amp you were
 w7>taking the measurement. Is it RF or DC . . . ?
 w7>Stan w7ni@teleport.com

It propbably refers to the several nasty frights I have had, when approaching parts of high power finals with any kind of probe - even a screwdriver. The RF jumps a long way, and the DC follows - and you notice just too late.

Bill, aka maestro@cix.co.uk.
GM8APX, qthr=No 6, EH4 6JY==Cave felem==No Rectangulars=Ikke Hawkering

Cato quinque et octoginta annos natus excessit e vita

Net-Tamer V 1.10 - Registered

Date: Mon, 12 Jan 1998 18:29:50 +2400
From: Bill Jarvis <B.H.Jarvis@hw.ac.uk>
To: "scott.freeberg" <scott.freeberg@guidant.com>
Cc: boatanchors <boatanchors@theporch.com>
Subject: Re: Viking Valiant Troubleshooting Help?
Message-ID: <199801121829.SAA05552@punt1.hw.ac.uk>

On 1998-01-12 scott.freeberg@guidant.com said:
 sc>power rated resistor also. Question #2: What is the value of R3
 sc>supposed to be? R3 feeds the OA2 inside the VFO shield. I do not
 sc>have the original manual. The copy schematic says 18K, the parts
 sc>list says 18k 2 watt, but the burned, ruptured part appears to be a
 sc>180 K ohm 2 watt. Question #3:   Is a 5U4 a suitable replacement

I suspect the colour(s) on an 18 K changed when it got hot, making it
look like 180 K, even when cold. This often happens and used to cause me
a lot of confusion.

Also, 180 K would need all of 600 V across it to need to dissipate 2
watts. 18 K looks much more likely.

Bill, aka maestro@cix.co.uk.
GM8APX, qthr=No 6, EH4 6JY==Cave felem==No Rectangulars=Ikke Hawkering

Silent enim leges sunt inter arma

Net-Tamer V 1.10 - Registered

Date: Mon, 12 Jan 1998 13:40:53 -0500
From: BEN NOCK <G4BXD@compuserve.com>
To: Multiple recipients of l <boatanchors@sco.theporch.com>
Cc: <skywaves@bw.webex.net>
Subject: Japanese data book
Message-ID: <199801121341_MC2-2F02-A0BF@compuserve.com>

Anchorites,
        Does anyone have Tube manuals or other data on tubes manufactured=

in
Japan? Lud Sibley is seeking information for the second addition of his
book. Copies of Tube Lore are available to barter if that helps.
73, Al

I have a Japanese tube data book, it has about 650 odd pages and =

is A5 size. Its about 5500 yen, thats about 26UKP or $42.
It certainly covers the valves in my Jap WWII sets.

Ben G4BXD.

Date: Mon, 12 Jan 1998 12:06:39 -0700 (MST)
From: Richard Loken <richardlo@devax.admin.athabascau.ca>
To: Stan Griffiths <w7ni@teleport.com>
Cc: boatanchors <boatanchors@sco.theporch.com>
Subject: re: the hazards of reading high voltage supplies

Message-ID:
<Pine.PMDF.3.95.980112113005.541065806A-100000@devax.admin.athabascau.ca>

Stan you are not the only person to ask why I care about high power high voltage supplies vs. low power supplies. Some who asked were rather sarcastic.

Well one big differance is that I have been across a TV anode supply and lived to tell about it whereas I was in the hall once when a mouse got across the B+ transformer in our RCA TT2BH 2Kw television transmitter and he was blown in half and I saw fashes fly out five feet. I won't even mention the stickers announcing that voltages in this cabinet were lethal.

Anyway I quote the Simpson DC High Voltage probe manual 00168:

...

> 2. Do not attempt to use this probe in high power circuits such as encountered in power sub-stations, radio transmitters, industrial RF heaters, X-Ray equipment or similar circuits. Its use must be restricted to the measurement of high voltages in low power, high impedance circuits such as exist in TV receivers or oscilloscopes.

...

> 9. Composite voltages can be dangerous. Do not attempt to measure a high DC voltage in an unfamiliar circuit that may contain an AC or RF component. The composite voltage may exceed the rating of the probe, and the presence of the AC component will not be indicated by the DC meter.

They go on to recommend further precautions if you measure over 25Kv and to be quick because the resistor in the probe will heat up. Simpson wants me to be careful and this brochure is 15 years old and thus predates much of the current "be safe and live forever" craze.

I am not an engineer, just a technician and no more can I pontificate on the subject. I am, and always have been, afraid of electricity and treat it with the suspicion it deserves which has always amused my friends whe are less privy to the black arts.

Here's one a little closer to home for you, Stan. In technical school back in 1970 we were supposed to be taking readings in a Tek oscilloscope with our Philips PM3230 bench oscilloscope when one of the less enlightened students decided to take some waveform readings from the high voltage section and disposed of a whole series of circuits in the Philips in but a moment. I have sometimes wondered if they were able to repair the scope, I've always found it fairly easy to diagnose blown up circuits (follow the smoke and flames ya know) but in this case the smoke may have gone farther than they wanted to follow it.

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Richard Loken VE6BSV, Systems Programmer - VMS
Athabasca University

Athabasca, Alberta Canada
** richardlo@admin.athabascau.ca **

End of BOATANCHORS Digest 1875
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